

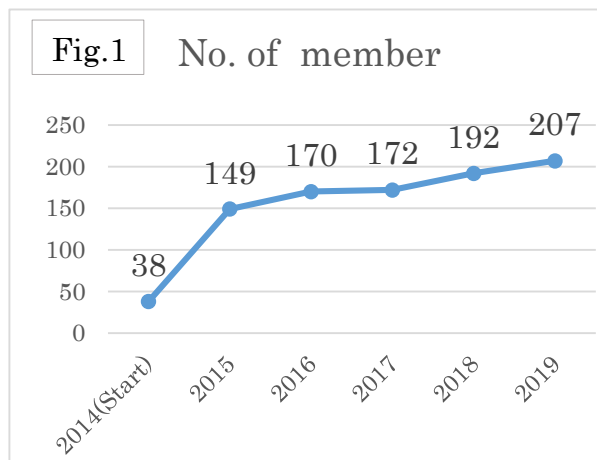
Preface

An International collaborative project, --JSPS-EP SRC-RFBR, "A Consortium to Exploit Spin Chirality in Advanced Materials" -JSPS Core-to-Core Program, A. Advanced Research Networks -- among the Hiroshima University (Japan), the Institute of Molecular Science (Japan), the University of Glasgow (UK), and the Ural Federal University (Russia) has been started with the following research goals:

1. Expand the variety of chiral magnetic crystals (synthesis of new materials), demonstrate various theoretically predicted manifestations of chiral properties (experiments), and establish basic theories (theory) for creating unique functionalities of chiral magnets.
2. Establish a research area that would integrate magneto-optic materials design, plasmonics, and spintronics phenomena that are currently being studied as separate disciplines (experiments & theory), and next-generation information and communication technologies (THz band operation, non-dissipative phase flow) and creation of advanced materials that contribute to attenuation of soliton transmission.
3. Professionally train young researchers who would be active internationally, and would provide a foundation for future international network formation.

At the beginning, there were 38 scientists in total: 18 from Japan (15 experimentalist, 3 theoreticians), 10 from UK (6 experimentalist, 4 theoreticians), and 10 from Russia (6 experimentalist, 4 theoreticians). Since then, the number of members has increased steadily, and now constitutes 207 members. (Figure 1)

After 2016, several institutions joined the project. Among them are the Aragon Materials Science Institute (ICMA) joint research center from the Zaragoza University and CSIC, (Spanish National Research Council,) the French University of Lyon, the Neel Institute, the Russian Academy of Sciences, Institute for Materials Research, Petersburg Nuclear Physics Institute (PNPI), and the University of Manitoba in Canada.



Many large and small workshops were held under an umbrella of the project. We held seven international symposiums starting from 2014;

1. IRSchM2014 (December 6-8, Hiroshima, Japan),
2. Core-to-Core Kick off meeting (October 11-13, 2015 Glasgow, UK),
3. ChiMag2016 Symposium (21-24 Feb. 2016, Hiroshima, Japan),
4. “Glasgow meeting 2017 (4-6 Sep. 2017, University of Glasgow, UK),
5. DMI2017 “IV International Workshop Dzyaloshinskii-Moriya Interaction and Exotic Spin Structures” , (23-26, May, 2017 (Peterhof, Russia),
6. χ Mag2018 Symposium, 25-28, July, 2018 (Nara Kasugano International Forum 橿 ~ I · RA · KA ~, Nara City, Japan)
7. V International Workshop Dzyaloshinskii-Moriya Interaction and Exotic Spin Structures , DMI2019, 8-12, July, 2019 (Petrozavodsk, Russia).

In 2017 alongside with PNPI, we decided to make the “International Workshop Dzyaloshinskii-Moriya Interaction, DMI” and “ χ Mag” Symposium sister meetings. In this sense, the DMI symposium is oriented on in-depth discussion of chiral magnetism, whereas the “ χ Mag” symposium focuses on some important selected topics.

The 8th international conference in Jaca, Spain continues these series of conferences. The program of this meeting is very open. It will allow to deliver talks to the consolidate scientists in order to explain and discuss about their results, and its relevance, done in each discipline in the framework of the Core-to-Core project. Also the students will have time-slots to explain about their PhD subjects and to receive ideas and suggestions of the other participants and finally during the round tables all the participants will have time to discuss and define about new research topics related with chirality in a open manner. “Open manner” including all the different meanings of the word, we will have time to discuss in this room, in coffee breaks, during the meals time, in the bus, in special sessions (winery), in the “open air” (excursion) and also in the “tapas bares” that sure you will visit in this beautiful city of Jaca.

Finally, let us me remark again that we would be very happy if we could discuss about the achievements done so far and the direction of future research as a compilation of this project.

Robert Stamps (University of Manitoba), Stephen McVitie (University of Glasgow), Alexander Ovchinnikov (Ural Federal University) and Katsuya Inoue (Hiroshima University) as node’s main coordinators.